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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|---------------------|----------------------|--------------------------|------------------|
| 09/884,108 | 06/20/2001 | Francois Court | 33808F151 | 3475 |
| 31684 | 7590 03/22/2006 | | EXAM | INER |
| ARKEMA | | MULLIS, JEFFREY C | | |
| PATENT DEPARTMENT - 26TH FLOOR 2000 MARKET STREET | | | ART UNIT | PAPER NUMBER |
| PHILADEL | PHIA, PA 19103-3222 | 1711 | | |
| | | | DATE MAIL ED: 03/22/2006 | 6 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|---|---|--|--|--|--|--|
| | 09/884,108 | COURT ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Jeffrey C. Mullis | 1711 | | | | |
| The MAILING DATE of this communication Period for Reply | appears on the cover sheet wit | th the correspondence address | | | | |
| A SHORTENED STATUTORY PERIOD FOR REWHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CF after SIX (6) MONTHS from the mailing date of this communication - If NO period for reply is specified above, the maximum statutory por Failure to reply within the set or extended period for reply will, by some Any reply received by the Office later than three months after the rearned patent term adjustment. See 37 CFR 1.704(b). | G DATE OF THIS COMMUNIC R 1.136(a). In no event, however, may a re n. eriod will apply and will expire SIX (6) MON statute, cause the application to become AB. | CATION. Poply be timely filed THS from the mailing date of this communication. ANDONED (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on 0 | 06 January 2006. | | | | | |
| 2a)⊠ This action is FINAL . 2b)□ | _ | | | | | |
| 3) Since this application is in condition for all | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice und | ler <i>Ex parte Quayle</i> , 1935 C.D. | . 11, 453 O.G. 213. | | | | |
| Disposition of Claims | | | | | | |
| 4)⊠ Claim(s) <u>1-3,5-16,18-20 and 23-26</u> is/are p |)⊠ Claim(s) <u>1-3,5-16,18-20 and 23-26</u> is/are pending in the application. | | | | | |
| 4a) Of the above claim(s) is/are with | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | |
| 5)⊠ Claim(s) <u>26</u> is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-3,5-16,18-20 and 23-25</u> is/are r | ejected. | | | | | |
| 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction a | nd/or election requirement. | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Exar | miner. | | | | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ | accepted or b) objected to b | by the Examiner. | | | | |
| Applicant may not request that any objection to | the drawing(s) be held in abeyand | ce. See 37 CFR 1.85(a). | | | | |
| Replacement drawing sheet(s) including the co | | • | | | | |
| 11)☐ The oath or declaration is objected to by the | e Examiner. Note the attached | Office Action or form PTO-152. | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for fore a) All b) Some * c) None of: | eign priority under 35 U.S.C. § | 119(a)-(d) or (f). | | | | |
| Certified copies of the priority documents | nents have been received. | | | | | |
| 2. Certified copies of the priority docum | • | · | | | | |
| 3. Copies of the certified copies of the | | received in this National Stage | | | | |
| application from the International Bu | , | | | | | |
| * See the attached detailed Office action for a | list of the certified copies not r | eceived. | | | | |
| Attachment(s) | _ | | | | | |
| Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) | | ummary (PTO-413))/Mail Date | | | | |
| Notice of Dransperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SE Paper No(s)/Mail Date | | formal Patent Application (PTO-152) | | | | |

Application/Control Number: 09/884,108

Art Unit: 1711

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-16, 18-20 and 23-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Court et al. (FR 2772038) in view of Okada (US 5,418,275).

Claim 2 of the patent discloses a composition having 25-95% of semicrystalline thermoplastic and 5-75% of ABC block copolymer. The composition also may contain 10% of a thermoplastic "D" compatible with block C such as BBE at page 6 lines 33-38. Block A may be syndiotactic methylmethacrylate at page 5 line 25 and copolymerized with glycidyl monomers at page 5 line 33 while block B may be hydrogenated polybutadiene at page 6 lines 3-7 and block C may be polystyrene at page 6 lines 8-15. Note that the semicrystalline thermoplastic may be a homopolymer of A and/or C in patent claim 3 and include syndiotactic polystyrene at page 5 lines 9-12.

Note that an ABC polymethylmethacrylate-polybutadiene-polystyrene block copolymer is exemplified in Example 3. Note the last paragraph on page 6 which discloses that polyphenylene ether may be added when the C derived sequences are derived from styrene, i.e. the exemplified block copolymer in patentees' Examples may be combined with the thermoplastics described at the last paragraph on page 6 including polyphenylene ether. There are no specific examples of applicants' combination of polyphenylene ether and polystyrene

Art Unit: 1711

homopolymer although the patent discloses that such materials may be used. However the patent specifically exemplifies applicants' block copolymer and discloses elsewhere that block copolymers containing polystyrene sequences may be combined with polyphenylene ethers. While there are no examples of compositions containing applicants' block copolymer in combination with polystyrene and with polyphenylene ether, patentees disclose examples of applicants' specific block copolymer and also disclose that various polymers including polystyrene may be combined with block copolymer such as those produced in the Example and also discloses that optionally polyphenylene ether may be combined with a block copolymer containing styrene sequences as produced in patentees' Examples and for this reason arrive at a composition containing a block copolymer of patentees' Examples in combination with polyphenylene ether and polystyrene would have been obvious to a practitioner in the expectation of adequate results. Arguably, applicants may disagree since patentees do not disclose any particular benefit of a combination of polyphenylene ether and syndiotactic polystyrene. However note the secondary reference, U.S. Patent 5,418,275 which discloses numerous benefits accruable by use of a combination of polystyrene and syndiotactic polystyrene in the Abstract and therefore use of a combination of syndiotactic polystyrene polyphenylene ether were set out in the Abstract of U.S. Patent 5,418,275 in the composition of the primary reference would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to produce a composition having the superior properties disclosed by the secondary reference absent any showing of surprising or unexpected results.

Applicant's arguments filed 1-6-05 have been fully considered but they are not persuasive. With re to applicants newly added limitation re the ratio of

Application/Control Number: 09/884,108

Art Unit: 1711

PPO:polystyrene, the implication of 10-90 weight per cent is based om the combined weight of the SPS and polystyrene. The level of less than 10 percemt "D" (such as PPO) as recited by the patent is based on the amount of block copolymer and thermoplastic resin(s) "X".

Applicants are correct that the "S" block of applicants is comparable to the "C" block of patentees' ABC block copolymer. While the patent teaches that the "C" block is incompatible with the thermoplastic resin "X" (page 7, lines 25-27 of the translation) the patent does not disclose that the "C" block is incompatible with the PPO and in fact polystyrene and PPO are known in the art to be an example of a compatible polymer pair and as such it would be expected bt those skilled in the art that the polystyrene "C" block would be compatible with the PPO of patentees' composition. Applicants claims recite that "S is compatible with the resin (A)" and that the resin "A" may consist of (as one choice) a mixture of polystyrene and PPO. The fact that patentees "C" block is compatible with one of the components of the blend would mean that there would be some compatibility between the blend and the block "C". Unpatented claims are given their broadest reasonable interpretation. With re to the incompatibility in the secondary reference, this appear to refer to the incompatibility between PPO and rubber component at column 2, lines 10-15. In any case the incompatibility referred to by both references means incompatible in the absence of a compatibilizer such as block copolymer.

Art Unit: 1711

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Mullis whose telephone number is (571) 272-1075. The examiner can normally be reached on Monday-Friday from 9:30 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (571) 272-1078. The fax phone number for this Group is (703) 872-9306.

J. Mullis:

3-14-06

Jeffrey Mullis Primary Examiner Art Unit 1711